

Appln No. 09/693,219
Amdt. Dated February 7, 2005
Response to Office action of December 6, 2004

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REMARKS/ARGUMENTS

Specification

A typographical error has been corrected on Page 2 of the specification. The Applicants submit that these amendments introduce no new matter.

Claims

The Examiner rejected claims 1-2, 6-13, and 15-30. By this amendment claims 1-2, 7, 13, 15, and 18-19 have been amended. Therefore claims 1-2, 6-13, and 15-30 remain pending in the application.

Claim Rejections – 35 USC §102

Claims 18-21, 27-28, and 30 were rejected under 35 USC 102(e) as being anticipated by Tabata et al (US 6,537,324) (hereinafter Tabata). The rejection is respectfully traversed.

The Applicants again assert that Tabata is very different from the present invention. The differences are explained in detail below, and the present claim amendments intended to clarify the differences are also described. In essence, Tabata is concerned with implementing a paper hypertext system, i.e., a system where paper documents can contain hyperlinks. In Tabata, a printed hyperlink is activated by marking it with an ordinary pen. The marked page is scanned by a conventional scanner (such as in a digital photocopier), and software detects the mark in the resultant scan image. Also encoded on the page is a barcode which encodes (in the simplest embodiment): (a) a map of where the hyperlinks are on the page, and (b) a table mapping hyperlinks to URLs. The software decodes the barcode from the digital image, obtains the map and the table, determines which hyperlink the mark designates, and retrieves and prints the document identified by the URL. See Col.14 Lines 44-67 and Col.15 Lines 1-11, and Figure 12.

Tabata stores an original digital representation of each paper document on a server. However, Tabata does not use this to help detect the mark. Instead, Tabata encodes an HTML representation of each page in the barcode encoded on the page. After scanning the page, Tabata extracts the HTML from the barcode and renders an image of the page from the HTML (Col.14 Lines 58-67), and detects the mark by detecting differences between the rendered image and the scan image.

Tabata does not teach a copying system per se. However, in some embodiments Tabata includes the step of retrieving the original digital representation of the scanned page from the server (using an additional file identifier encoded in the barcode) and re-printing it. Tabata does this for the express purpose of providing the user with a pristine copy of the original page, i.e., without the mark used to activate the hyperlink, so that the user may activate a further hyperlink (Col.22 Lines 38-44). This addresses the problem that marked pages cannot be re-used to activate hyperlinks. As an aside he mentions that the scanner may include a mechanism to physically "delete" the marks from the scanned paper page, to allow the page to be re-used without having to re-print it (Col.22 Lines 44-50).

Crucially, Tabata does not treat marks as annotations. That is, unlike the present invention, Tabata does not treat marks associated with digital ink as things to be preserved or reproduced. Thus Tabata does not associate marks with the original digital representation of a page on the server, and when Tabata re-prints a page using the original digital

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representation of the page from the server, Tabata never discloses also printing any marks obtained from the scan. In fact Tabata teaches away from this, as noted above. See MPEP 2141.02 "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). When Tabata is thus considered as a whole it clearly does not teach the features of the present invention.

To clarify the above distinctions between Tabata and the present invention, the claims have been further amended to recite that a scanned document includes markings associated with digital ink and markings not associated with digital ink, and wherein a subsequent printed copy of the document duplicates the markings associated with digital ink but does not duplicate the markings not associated with digital ink. That is a function that is clearly far outside of anything contemplated or suggested by Tabata, and as described above Tabata actually teaches away from using markings as digital ink. (Note that when one re-prints a page using a scanned image, it is trivial to include all scanned marks; that is simply what a conventional photocopier does.)

"Digital ink" is a term well known in the art. For example, US patent application publication no. 20020081027 states that "digital ink refers to a digital representation of a non-textual image or manually generated image, such as a signature, a handwritten note or a graphical image."

Support for the present claim amendments is found, for example, in the specification as originally filed at page 22, line 28, to page 23, line 13, where the document is referred to as a "netpage" and the differences between the digital image and the stored data include "markings which are not part of the archived netpage":

"In general then, provided that the copier is able to sense the identity of an input netpage, it is able to produce a pristine digital copy of the page, with or without the digital ink associated with the page, even if the physical netpage is severely degraded or damaged.

By default, markings on the surface of a netpage which are not made with a netpage pen, and which are thus not known to the netpage system, are not duplicated when a netpage is copied in this way. However, since the page is also physically scanned by the image sensor, the copier can detect the presence of markings which are not part of the archived netpage, and can then optionally duplicate those markings. In this case the copier is able to compute the difference between the scanned image and a rendered image of the archived page, and can thus reproduce these differences in the copy. However, this process may reproduce unwanted artifacts such as creases and dirt, if present. If the user has requested an ordinary (non-netpage) copy of the page and the page contains non-netpage input, then the copier can also produce if required a local copy of the page, ie. one produced directly from the scanned image rather than including information from the archived netpage page description."

Claim Rejections – 35 USC §103

The Applicants assert that the claim rejections under 35 USC 103(a) are now moot in light of the present amendments to all of the independent claims.

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Conclusion

The presently amended claims are now clearly distinguishable over the prior art of Tabata et al, McCarthy et al, Dymetman and Barrett et al cited by the Examiner. Therefore it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

Applicants:



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